Thick film thermal printhead (8 dots / mm)

KD2003-DC10A

The KD2003-DC10A is a 24 V standard thick film thermal printhead with a printing speed up to 6 inches / s that has been developed mainly for label printer use.

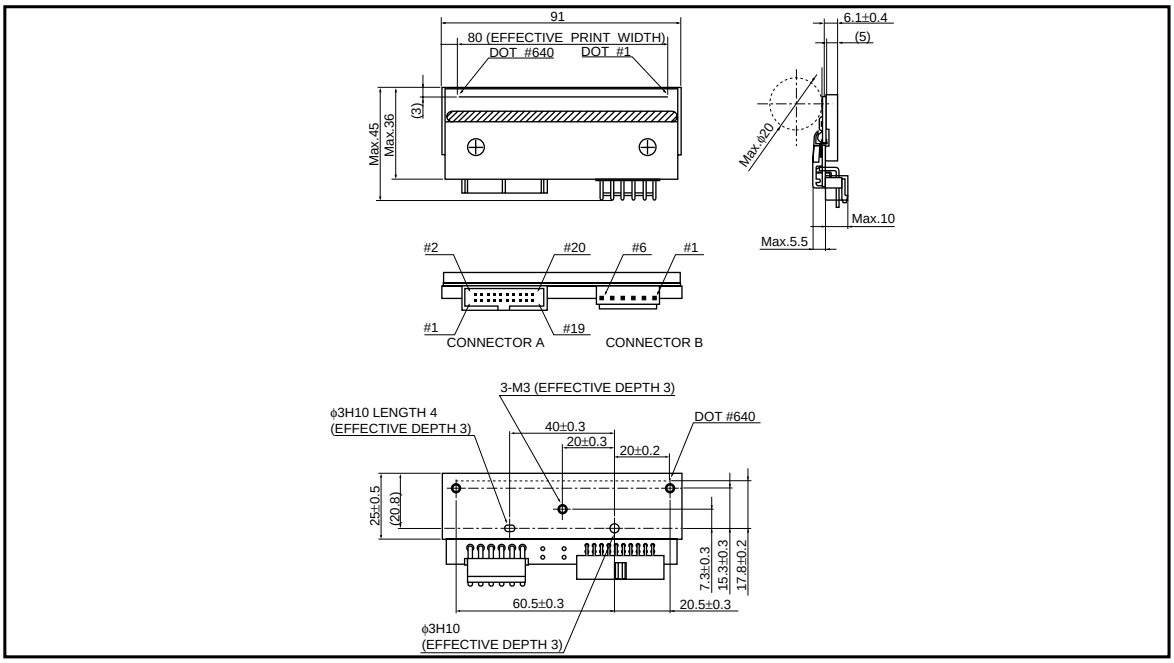
●Applications

High speed label printer
High speed bar code printer
High speed ticket printer
Various high speed terminal printers

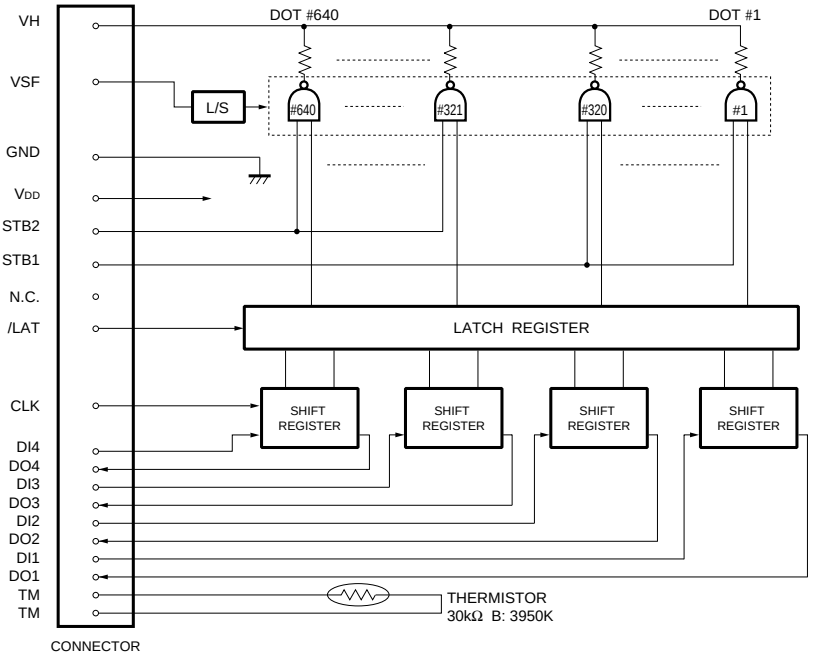
●Features

1) Newly developed thick-film fast response thermal element is employed for this series and 6 inches / s or 150 mm / s is possible without thermal history control. It is possible to print 10 inches / s or 250 mm / s if external thermal history control is used.
2) 150km life realized by attributing durable new protection film.
3) New partial glaze construction makes it compatible with the thermal transfer application.

●External dimensions (Unit : mm)



●**Equivalent circuit**



VSF : Usually VSF and VH are connected. When measuring R value of Heat-element , VSF and VH should be separated.

DI No.	DOT No.
DI1	1 to 192
DI2	193 to 320
DI3	321 to 512
DI4	513 to 640

STB No.	DOT No.
STB1	1 to 320
STB2	321 to 640

Fig. 1

●**Pin assignments**

CONNECTOR A

No.	Circuit	No.	Circuit
1	GND	11	TM
2	VSF	12	TM
3	GND	13	DI3
4	V_{DD}	14	DO3
5	STB2	15	DI2
6	CLK	16	DO2
7	DI4	17	N.C.
8	DO4	18	STB1
9	N.C.	19	DI1
10	$\overline{LAT}$	20	DO1

CONNECTOR B

No.	Circuit
1	VH
2	VH
3	VH
4	GND
5	GND
6	GND

●**Timing chart**

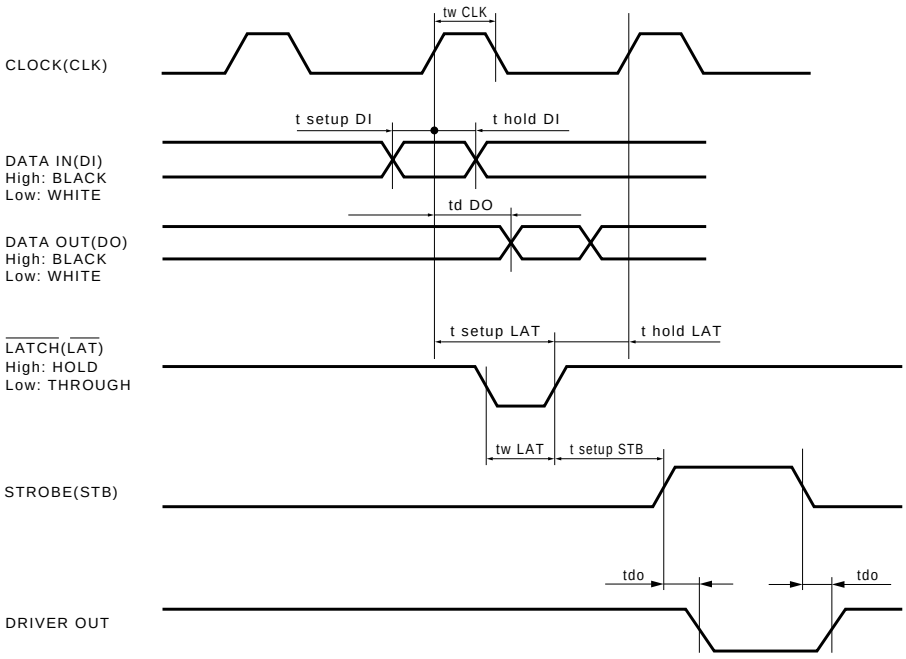


Fig.2

●**Characteristics**

Parameter	Symbol	Typical	Unit
Effective printing width	–	80	mm
Dot pitch	–	0.125	mm
Total dot number	–	640	dots
Average resistance value	Rave	650	Ω
Applied voltage	V_H	24	V
Applied power	P_O	0.80	W / dot
Print cycle	SLT	0.82	ms
Maximum number of dots energized simultaneously	–	640	dots
Maximum clock frequency	–	12	MHz
Maximum roller diameter	–	ϕ20.0	mm
Running life / pulse life	–	150 / (1×10^8)	km / pulses
Operating temperature	–	5 to 45	°C

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